. 5

=> fil reg FILE 'REGISTRY' ENTERED AT 14:07:37 ON 25 MAR 96 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 1996 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 24 MAR 96 HIGHEST RN 174510-32-8 DICTIONARY FILE UPDATES: 24 MAR 96 HIGHEST RN 174510-32-8

TSCA INFORMATION NOW CURRENT THROUGH JUNE 1995

Please note that search-term pricing does apply when conducting SmartSELECT searches.

=> d l1 ide can

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 1996 ACS

RN 24280-93-1 REGISTRY

CN 4-Hexenoic acid, 6-(1,3-dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuranyl)-4-methyl-, (E)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4-Hexenoic acid, 6-(4-hydroxy-6-methoxy-7-methyl-3-oxo-5-phthalanyl)-4-methyl-, (E)- (8CI)

OTHER NAMES:

CN Mycophenolic acid

CN NSC 129185

FS STEREOSEARCH

MF C17 H20 O6

CI COM

LC STN Files: AIDSLINE, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CAPREVIEWS, CASREACT, CEN, CHEMCATS, CHEMLIST, CJACS, CSCHEM, DDFU, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-CCOHS, NAPRALERT, PHAR, PNI, PROMT, RTECS*, TOXLINE, TOXLIT, USAN, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**, WHO

(**Enter CHEMLIST File for up-to-date regulatory information)

DES 2:E

Double bond geometry as shown.

350 REFERENCES IN FILE CA (1967 TO DATE)

16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

(†:

353 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:164692

REFERENCE 2: 124:164682

REFERENCE 3: 124:164239

REFERENCE 4: 124:164156

REFERENCE 5: 124:163997

REFERENCE 6: 124:163996

```
REFERENCE
            7: 124:139508
REFERENCE
            8:
                124:110712
REFERENCE
            9: 124:97764
REFERENCE 10: 124:86709
=> d que 16
              7 SEA FILE=REGISTRY 24280-93-1/CRN
L4
              6 SEA FILE=REGISTRY ("MYCOPHENOLIC ACID ACETATE"/CN OR "MYC
                OPHENOLIC ACID CHLORIDE"/CN OR "MYCOPHENOLIC ACID DISODIU
                M SALT"/CN OR "MYCOPHENOLIC ACID GLUCOSIDURONATE"/CN OR "
                MYCOPHENOLIC ACID GLUCURONIDE"/CN OR "MYCOPHENOLIC ACID M
                ONOSODIUM SALT"/CN OR "MYCOPHENOLIC ACID, METHYL ESTER"/C
                N OR "MYCOPHENOLIC MONOSODIUM SALT"/CN)
             12 SEA FILE=REGISTRY L2 OR L4
L6
=> d his 17-
     (FILE 'HCAPLUS' ENTERED AT 13:50:36 ON 25 MAR 96)
L7
            595 S L1 OR L1/D OR ?MYCOPHENOL?/IA
              1 S HAIR/BI, AB AND L7
L8
L9
             38 S L6 OR L6/D
1.10
              1 S L9 AND HAIR/BI,AB
L11
              1 S L8 OR L10
                E AHLUWALIA G/AU
L12
             53 S E3-E9
                E STYCZYNSKI P/AU
              9 S E3-E8
L13
                E SHANDER D/AU
L14
             22 S E3, E4
             76 S L12 OR L13 OR L14
L15
L16
              2 S L15 AND L7
L17
              0 S L15 AND L9
              0 S L16 AND HAIR/BI, AB
L18
     FILE 'BIOSIS' ENTERED AT 13:53:28 ON 25 MAR 96
L19
            548 S L1 OR L1/D OR L6 OR L6/D OR MYCOPHENOL? OR MYCO PHENOL?
L20
              0 S L19 AND HAIR
                E AHLUWALIA G/AU
L21
             68 S E3, E4
                E STYCZYNCKI P/AU
             11 S E2, E12, E13
T<sub>1</sub>22
                E SHANDER D/AU
L23
             21 S E3, E4
L24
            100 S L21 OR L22 OR L23
L25
              3 S L24 AND L19
              1 S L24 AND HAIR
L26
1.27
              0 S L25 AND L26
     FILE 'HCAPLUS' ENTERED AT 13:55:43 ON 25 MAR 96
L28
             16 S L15 AND HAIR/BI, AB
     FILE 'MEDLINE' ENTERED AT 13:56:16 ON 25 MAR 96
L29
            486 S L1 OR L6 OR MYCOPHENOL? OR RS()(61443 OR 61 443)
L30
              0 S L29 AND (HAIR+NT/CT OR HAIR PREPARATIONS+NT/CT OR HAIR
              0 S L29 AND HAIR
L31
                E AHLUWALIA G/AU
L32
             46 S E3, E4
                E STYCZYNSKI P/AU
L33
             14 S E3,E4
                E SHANDER D/AU
             24 S E3
L34
L35
             84 S L32 OR L33 OR L34
L36
              2 S L35 AND L29
              0 S L35 AND (HAIR+NT/CT OR HAIR PREPARATIONS+NT/CT OR HAIR
L37
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0 S L35 AND HAIR

L38

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FILE 'EMBASE' ENTERED AT 13:58:36 ON 25 MAR 96
            733 S L1 OR L6 OR MYCOPHENOL? OR RS()(61443 OR 61 443)
L39
             8 S L39 AND (HAIR+NT/CT OR HAIR DISEASE+NT/CT OR HAIR GROWT
1.40
L41
            645 S MYCOPHENOL?/CT
L42
              0 S L41/MAJ AND L40
                E AHLUWALIA G/AU
L43
             41 S E3, E4
                E STYCZYNCKI P/AU
              9 S E10, E11
L44
                E SHANDER D/AU
             18 S E3
1.45
L46
             68 S L43 OR L44 OR L45
L47
              2 S L46 AND L39
L48
              2 S L46 AND HAIR
L49
              0 S L48 AND L39
     FILE 'BIOBUSINESS' ENTERED AT 14:03:40 ON 25 MAR 96
             45 S L1 OR L6 OR MYCOPHENOL? OR MYCO PHENOL?
1.50
              0 S L50 AND HAIR
L51
     FILE 'PROMT' ENTERED AT 14:04:15 ON 25 MAR 96
L52
             36 S L1 OR L6 OR MYCOPHENOL? OR MYCO PHENOL?
              0 S L52 AND HAIR
L53
     FILE 'WPIDS' ENTERED AT 14:04:36 ON 25 MAR 96
             95 S ?MYCOPHENOL? OR ?MYCO PHENOL?
L54
L55
              1 S L54 AND HAIR
L56
              1 S L54 AND P93###/M0,M1,M2,M3,M4,M5,M6
              1 S L55 OR L56
L57
     FILE 'BIOSIS, HCAPLUS' ENTERED AT 14:07:24 ON 25 MAR 96
             18 DUP REM L26 L28 L11 (0 DUPLICATES REMOVED)
L58
     FILE 'REGISTRY' ENTERED AT 14:07:37 ON 25 MAR 96
=> fil wpids
FILE 'WPIDS' ENTERED AT 14:07:56 ON 25 MAR 96
COPYRIGHT (C) 1996 DERWENT INFORMATION LTD
FILE LAST UPDATED: 22 MAR 96
                                            <960322/UP>
>>>UPDATE WEEKS:
MOST RECENT DERWENT WEEK
                                    9612
                                            <199612/DW>
DERWENT WEEK FOR CHEMICAL CODING:
                                    9551
DERWENT WEEK FOR POLYMER INDEXING: 9608
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE
>>> DERWENT POLYMER INDEXING THESAURUS AVAILABLE IN FIELD /PLE <<<
     >>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<
=> d 157 bib abs
                            COPYRIGHT 1996 DERWENT INFORMATION LTD
L57 ANSWER 1 OF 1 WPIDS
NΑ
     95-196690 [26]
                    WPIDS
DNC
    C95-091099
    Hair growth promoter contg. mycophenolic acid or
     derivs. - halts abnormal hair loss in premature alopecia
     and alopecia areata.
DC
     B02 D21 E13
PA
     (IMMO) IMMUNO JAPAN KK
CYC
    JP 07112923 A 950502 (9526)*
                                         5 pp
ADT
    JP 07112923 A JP 93-289710 931015
PRAI JP 93-289710
                   931015
AN
     95-196690 [26] WPIDS
AR
     JP07112923 A UPAB: 950705
     Hair growth promoting compsns. contg. mycophenolic
     acid of formula (I) or its derivs. of formula (II) as the active
     ingredients, are new: R1 = H or OH; R2 = H or Me; and R3 = H or
     acetyl.
```

ADVANTAGE - The compsn. is safe, and can rapidly halt abnormal hair loss in premature alopecia and alopecia areata, and prevent epilation and accelerate hair restoration in pets, e.g. dogs and cats. Dwg.0/0 => fil biosis FILE 'BIOSIS' ENTERED AT 14:08:09 ON 25 MAR 96 COPYRIGHT (C) 1996 BIOSIS(R) FILE COVERS 1969 TO DATE. CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE. RECORDS LAST ADDED: 12 March 1996 (960312/ED) CAS REGISTRY NUMBERS (R) LAST ADDED: 13 March 1996 (960313/UP) => d 126 bib ab L26 ANSWER 1 OF 1 BIOSIS COPYRIGHT 1996 BIOSIS TI HAIR GROWTH MODIFICATION WITH ORNITHINE DECARBOXYLASE INHIBITORS. AU SHANDER D CS 5 MEADOWGRASS CT., GAITHERSBURG, MD. 20878, USA. US 4720489 19 Jan 1988 OFF GAZ U S PAT TRADEMARK OFF PAT 1086 (3). 1988. 1378-1379. CODEN: OGUPE7 ISSN: 0098-1133 DT Patent LA English => fil hcaplus FILE 'HCAPLUS' ENTERED AT 14:08:41 ON 25 MAR 96 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 1996 AMERICAN CHEMICAL SOCIETY (ACS) FILE COVERS 1967 - 25 Mar 1996 VOL 124 ISS 13 FILE LAST UPDATED: 23 Mar 1996 (960323/ED) Roles are now available from 1967 to date. => d l11 all L11 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 1996 ACS 1995:668449 HCAPLUS 123:92871 Hair growth-stimulating compositions containing mycophenolic acid or its derivatives Tamura, Gakuzo; Ando, Kunio; Nakamura, Tetsuo Imuno Japan Kk, Japan Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF JP 07112923 A2 950502 Heisei JP 93-289710 931015 Patent Japanese ICM A61K007-06 ICS A61K031-365 ICA C07D307-88 62-3 (Essential Oils and Cosmetics) MARPAT 123:92871

=>

IN

PA SO

PI

AΙ DT

LA

IC

CC

OS

GΙ

OH
$$CH_{2}CH = C \text{ (Me)} CH_{2}CH_{2}CO_{2}H$$

$$OMe$$

$$Me$$

AB Hair growth stimulants, useful for topical application, contain mycophenolic acid (I) or its derivs. as active ingredients. A compn. contg. I 0.25, menthol 0.1, CM-cellulose Na salt 0.5 g, triethanolamine, and 50% EtOH to 100 mL stimulated the growth of hair in rabbits.

ST hair growth stimulant mycophenolate

Τ

IT Alopecia

(treatment of; hair growth stimulants contg.

mycophenolic acids)

IT Hair preparations

(growth stimulants, hair growth stimulants contg.

mycophenolic acids)

IT 24280-93-1, Mycophenolic acid 31377-08-9

126840-53-7, Phthalexin

RL: BAC (Biological activity or effector, except adverse); BUU
(Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hair growth stimulants contg. mycophenolic
 acids)

=> d 128 1-16 bib ab ct

L28 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 1996 ACS

AN 1995:928370 HCAPLUS

DN 123:321728

TI Ornithine aminotransferase inhibitors for inhibition of unwanted hair growth

IN Shander, Douglas; Funkhouser, Margaret G.

PA Handleman, Joseph H., USA

SO PCT Int. Appl., 15 pp.

CODEN: PIXXD2

PI WO 9524181 A1 950914

DS W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT

RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 95-US2915 950308

PRAI US 94-212012 940311

DT Patent

LA English

AB Mammalian hair growth is reduced by applying to the skin a compn. including an inhibitor of ornithine aminotransferase. Topical application of a soln. contg. 5% 5-fluoromethylornithine in a vehicle comprising deionized water 68, abs. ethanol 16, propylene glycol 5, dipropylene glycol 5, benzyl alc. 4, and propylene carbonate 2%, reduced hair growth by .apprx.66% in male Golden Syrian hamsters.

CT Cosmetics

CT Hair

CT Hirsutism

L28 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 1996 ACS

AN 1995:926476 HCAPLUS

DN 123:321734

TI Cysteine synthetic pathway enzyme inhibitors to retard unwanted hair growth

```
IN
     Ahluwalia, Gurpreet S.; Shander, Douglas
     Handleman, Joseph H., USA
PA
     PCT Int. Appl., 23 pp.
SO
     CODEN: PIXXD2
PΙ
     WO 9524885 A1
DS
         AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI,
         GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG,
         MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ,
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
         IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
     WO 95-US2902 950310
AΙ
PRAI US 94-213954 940316
DT
     Patent
LA
     English
     Mammalian hair growth is reduced by applying to the skin
AB
     an inhibitor of a cysteine synthetic pathway enzyme, such as
     methionine S-adenosyltransferase, L-homocysteine
     S-methyltransferase, S-adenosylhomocysteine hydrolase, cystathionine
     synthase, and cystathionase. For example, a topical compn.
     comprised 5% 3-deazaneplanocin in a vehicle contq. ethanol 16,
     propylene glycol 5, dipropylene glycol 5, benzyl alc. 4, propylene
     carbonate 2, and pure water 68%. The compn. inhibited hair
     mass by 86.65% in male Golden Syrian hamster model.
CT
     Cosmetics
CT
     Hair
CT
     Hirsutism
L28
     ANSWER 3 OF 16 HCAPLUS COPYRIGHT 1996 ACS
     1995:926475 HCAPLUS
AN
     123:321733
DN
ΤI
     Nitric oxide synthetase inhibitors for inhibition of unwanted
   hair growth
     Ahluwalia, Gurpreet S.; Shander, Douglas; Henry,
IN
     James P.
PA
     Handelman, Joseph H., USA
SO.
     PCT Int. Appl., 12 pp.
     CODEN: PIXXD2
     WO 9524884 A1
PI
                    950921
         AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ,
DS
         TM, TT
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
         IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
     WO 95-US2898 950310
PRAI US 94-213931 940316
DT
     Patent
LΑ
     English
AB
     Mammalian hair growth is reduced by applying to the skin
     an inhibitor of nitric oxide synthetase. A topical compn. contains
     1-30 % of the inhibitor, such as NG-methyl-L-arginine to provide a
     redn. in hair growth by .gtoreq.30%, when tested in the
     Golden Syrian hamster assay.
CT
     Cosmetics
CT
     Hair
CT
     Hirsutism
L28
     ANSWER 4 OF 16 HCAPLUS COPYRIGHT 1996 ACS
AN
     1995:872304 HCAPLUS
DN
     123:265813
     Method of reducing the rate of hair growth with asparagine
TI
     synthetase inhibitors
IN
     Ahluwalia, Gurpreet S.
PΑ
     U.S., 3 pp. Cont.-in-part of U.S. Ser. No. 788,168, abandoned.
SO
     CODEN: USXXAM
PΙ
     US 5444090 A
                     950822
     US 94-212584 940311
```

ΑI

```
PRAI US 91-788168 911105
     Patent
DT
     English
LΑ
AB
     The rate and character of mammalian hair growth is altered
     by the topical application to the skin of a compn. contg. an org.
     inhibitor of asparagine synthetase. The inhibitors include
     guanidinosuccinic acid, oxaloacetic acid, cysteinesulfinic acid,
     di-Et aminomalonate, and ethacrynic acid. A topical compn. is
     particularly effective to reduce the androgen-stimulated
   hair growth. The compn. provides a redn. in hair
     growth by .gtoreq.23.3% when tested in the Golden Syrian hamster
     assay.
CT
     Cosmetics
CT
     Hair
CT
     Hirsutism
     ANSWER 5 OF 16 HCAPLUS COPYRIGHT 1996 ACS
T<sub>28</sub>
AN
     1995:324868 HCAPLUS
DN
     122:89132
TI
     Inhibitors of 5-lipoxygenase for prevention of hair growth
IN
     Ahluwalia, Gurpreet S.; Shander, Douglas
     Handelman, Joseph, H., USA
PA
SO
     PCT Int. Appl., 12 pp.
     CODEN: PIXXD2
                     941208
PΤ
     WO 9427563 A1
     W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
DS
         IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
ΑI
     WO 94-US5361 940516
PRAI US 93-68256 930528
DT
     Patent
LΑ
     English
AΒ
     Mammalian hair growth is inhibited by applying to the skin
     a compn. including an inhibitor of 5-lipoxygenase. The enzyme
     inhibitor is selected from quercetin, DL-.alpha.-tocopherol,
     apigenin, Pr gallate, nordihydroguaiaretic acid, and caffeic acid.
     The effective amts. of the compd. range from 100 to 3000 .mu.g per
     cm2 of skin and the compn. is applied once or twice for at least 3
     mo to achieve a perceived redn. in hair growth.
CT
     Cosmetics
CT
     Hair
CT
     Hirsutism
L28
     ANSWER 6 OF 16 HCAPLUS COPYRIGHT 1996 ACS
AN
     1995:320081 HCAPLUS
DN
     122:89083
TT
     Inhibition of hair growth with cyclooxygenase inhibitors
IN
     Ahluwalia, Gurpreet S.; Shander, Douglas
PA
     Handelman, Joseph H., USA
     PCT Int. Appl., 14 pp.
SO
     CODEN: PIXXD2
PT
     WO 9427586 A1
                     941208
DS
         AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE,
         HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ,
         PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
          IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
     WO 94-US5360 940516
AΙ
PRAI US 93-68257 930528
DΤ
     Patent
LA
     English
     Mammalian hair growth is reduced by applying to the skin a
     compn. including an inhibitor of cyclooxygenase. A formulation
     contq. 20% indomethacin reduced hair growth in hamster
     after 13 application (1 application/day for 5 days a wk) by 78.43%.
CT
     Carboxylic acids, biological studies
CT
     Hair preparations
```

"在事中以前的事例以為重遇 数度的方式

```
CT
      Inflammation inhibitors
      ANSWER 7 OF 16 HCAPLUS
                                  COPYRIGHT 1996 ACS
L28
      1994:686338 HCAPLUS
ΑN
DN
      121:286338
TI
      Topical composition for inhibiting hair growth containing
      .alpha.-(difluoromethyl)ornithine
      Boxall, Brian Alfred; Amery, Geoffrey Wilfred; Ahluwalia,
IN
      Gurpreet S.
PΑ
      Handelman, Joseph H., USA
SO
      PCT Int. Appl., 13 pp.
      CODEN: PIXXD2
PΤ
      WO 9421216 A1
          AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, RO, RU, SD, SE, SK,
DS
          UA, US, VN
      RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
           IE, IT, LU, MC, ML, MR, NL, PT, SE, SN, TD, TG
ΑT
      WO 93-US2684 930319
DT
      Patent
LΑ
      English
AΒ
      A topical compn. for inhibiting mammalian hair growth,
      particularly human beard hair growth (including
      hirsutism), comprises a water-sol., hair-growth-inhibiting
      agent, .alpha.-(difluoromethyl)ornithine (I) dispersed in an
      oil-in-water emulsion in the form of a lotion or cream. A topical emulsion contained water 80.84, glyceryl stearate 4.24, PEG stearate
      4.09, cetearyl alc. 3.05, ceteareth-20 2.50, mineral oil 2.22,
      stearyl alc. 1.67, dimethicone 0.56, I 10%, and NaOH q.s. pH=3.5.
      The hair growth inhibition of the above emulsion in
      hamster was 87.6% as compared to control contg. no I.
CT
      Paraffin oils
CT
      Alcohols, biological studies
CT
      Alcohols, biological studies
CT
      Cosmetics
CT
      Hair preparations
L28
      ANSWER 8 OF 16 HCAPLUS COPYRIGHT 1996 ACS
AN
      1994:541665 HCAPLUS
DN
      121:141665
      Reduction of hair growth employing sulfhydryl reactive
TI
      compounds
      Shander, Douglas; Ahluwalia, Gurpreet S.;
IN
      Mark-Del Grosso, Diana
PA
      Handelman, Joseph H., USA
SO
      PCT Int. Appl., 17 pp.
      CODEN: PIXXD2
      WO 9414428 Al 940707
PΙ
DS
          AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP,
          KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU,
      SD, SE, SK, UA, US, UZ, VN
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
      WO 93-US12266
                      931216
AΙ
PRAI US 92-995037 921222
DT
      Patent
LA
      English
AB
      A method of reducing the rate of mammalian hair growth
      includes topically applying a compn. contq. a SH reactive compd. to
                  The SH reactive compds., such as cysteamine,
      D-penicillamine, captopril, and thiosalicylic acid, penetrate into
    hair follicles in the skin and reacts with free cysteine in
      the hair follicle cells to form cysteine-mixed disulfides.
CT
      Hair
CT
      Mercapto compounds
CT
      Thiols, biological studies
\mathsf{CT}
      Head
```

ANSWER 9 OF 16 HCAPLUS COPYRIGHT 1996 ACS

L28

. :

40 S. S. S. S. S.

```
AN
     1994:491309 HCAPLUS
     121:91309
DN
     Pantothenic acid and pantothenyl alcohol for inhibition of
TI
   hair growth
     Ahluwalia, Gurpreet S.; Shander, Douglas
TN
PA
     USA
SO
     PCT Int. Appl., 16 pp.
     CODEN: PIXXD2
PΙ
     WO 9410967 A1
                    940526
DS
         AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP,
         KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU,
         SD, SE, SK, UA, US, UZ, VN
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AΙ
     WO 93-US10920 931110
PRAI US 92-976446 921113
DT
     Patent
LА
     English
AB
     Mammalian hair growth is cosmetically reduced by applying
     to the skin a compn. including pantothenic acid or pantothenyl alc.
CT
     Hair preparations
     ANSWER 10 OF 16 HCAPLUS COPYRIGHT 1996 ACS
L28
     1993:434298 HCAPLUS
AN
DN
     119:34298
TI
     Alteration of rate and character of hair growth
IN
     Handelman, Joseph H.; Ahluwalia, Gurpreet S.
PΑ
     PCT Int. Appl., 9 pp.
SO
     CODEN: PIXXD2
PΙ
     WO 9308687 A1
                     930513
         AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP,
DS
         KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, UA, US
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
         IE, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG
     WO 92-US9438 921104
AΙ
PRAI US 91-788168 911105
DT
     Patent
LA
     English
     The rate and character of mammalian hair growth are
AB
     altered by the topical application to the skin of a compn. contq. an
     org. inhibitor of the enzyme L-asparagine synthetase. A topical
     compn. for reducing the rate and altering the character of mammalian
   hair growth comprises a nontoxic dermatol. acceptable
     vehicle and from 0.1 to 30 % based on the total wt. of the compn. of
     an org. inhibitor of L-asparagine synthetase, such as
     quanidinosuccinic acid.
     Hair preparations
CT
     ANSWER 11 OF 16 HCAPLUS COPYRIGHT 1996 ACS
L28
AN
     1992:557401 HCAPLUS
DN
     117:157401
ΤI
     Transglutaminase inhibitors as hair growth inhibitors
IN
     Handelman, Joseph H.; Shander, Douglas; Funkhouser,
     Margaret G.
PA
     USA
     PCT Int. Appl., 12 pp.
SO
     CODEN: PIXXD2
PΙ
     WO 9211007 A1
                    920709
         AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP,
DS
         KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, SD, SE, SU, US
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG
ΑI
     WO 91-US9645
                    911219
PRAI US 90-632126
                    901220
DT
     Patent
LA
     English
     The rate and character of mammalian hair growth is altered
AB
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by topical application to the skin of a compn. contq. an inhibitor of the transglutaminase. A topical compn. contained 5-(N-benzyloxycarbonyl-L-phenylalaninamido-methyl)-3-bromo-4,5dihydroisoxazole 20, acetone 75, propylene carbonate 20, benzyl alc. The application of above compn. on hamster skin for 18 days inhibited the hair mass by 87.87%. **Hair** preparations ANSWER 12 OF 16 HCAPLUS COPYRIGHT 1996 ACS 1992:221336 HCAPLUS 116:221336 Enzymic alteration of hair growth Handelman, Joseph H.; Shander, Douglas; Harrington, Eugene F.; Ahluwalia, Gurpreet S. PCT Int. Appl., 12 pp. CODEN: PIXXD2 WO 9203140 A1 920305 AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MN, MW, NL, NO, PL, RO, SD, SE, SU, US RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG WO 91-US5721 910812 PRAI US 90-567018 900814 Patent English Mammalian hair growth is inhibited by application to the skin of an inhibitor of S-adenosylmethionine decarboxylase (I), alone or combined with an inhibitor of ornithine decarboxylase (II). Such compns. are useful for treatment of e.g. female hirsutism. Thus, a compn. contg. water 68, EtOH 16, propylene glycol 5, dipropylene glycol 5, PhCH2OH 4, propylene carbonate 2, 5'-deoxy-5'-[N-methyl-N-[2-(aminooxy)ethyl]aminoadenosine (I inhibitor) 5, and 2-(difluoromethyl)ornithine (II inhibitor) 5 parts, applied at 10 .mu.L/day topically to the shaved flank organ of golden Syrian hamsters, inhibited hair growth by 70.9%. Hair ANSWER 13 OF 16 HCAPLUS COPYRIGHT 1996 ACS 1992:188094 HCAPLUS 116:188094 Alteration of rate and character of hair growth by topical application of inhibitors of adenylosuccinate synthetase or aspartate transcarbamylase Ahluwalia, Gurpreet S. U.S., 3 pp. CODEN: USXXAM US 5095007 A 920310 US 90-603999 901024 Patent English The rate and character of mammalian hair growth is altered by the topical application of inhibitors of adenylosuccinate synthetase or aspartate transcarbamylase. Topical treatment with a 10% soln. of L-alanosine, twice over a 24-h period, resulted in .apprx.49% inhibition of adenylosuccinate synthetase activity in hamster hair follicles. Hair **Hair** preparations ANSWER 14 OF 16 HCAPLUS COPYRIGHT 1996 ACS. 1992:158565 HCAPLUS 116:158565 Alteration of rate and character of hair growth with .gamma.-glutamyl transpeptidase inhibitor Ahluwalia, Gurpreet S.; Shander, Douglas;

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Harrington, F. Eugene

Handelman, Joseph H., USA

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SO
     PCT Int. Appl., 9 pp.
     CODEN: PIXXD2
ΡI
     WO 9200069 A1
                    920109
DS
         AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP,
         KR, LK, LU, MC, MG, MN, MW, NL, NO, PL, RO, SD, SE, SU, US
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
          IT, LU, ML, MR, NL, SE, SN, TD, TG
AΙ
     WO 91-US4427 910621
PRAI US 90-542586 900625
DT
     Patent
LΑ
     English
AB
     Mammalian hair growth is inhibited with .gamma.-glutamyl
     transpeptidase inhibitor. The flank organs of male Golden Syrian
     hamsters were treated topically with 6.0% acivicin. Hair growth was inhibited by 81.0%. Anthglutin was prepd. and used to
     inhibit hair growth.
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     Mammal
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     Hair preparations
     ANSWER 15 OF 16 HCAPLUS COPYRIGHT 1996 ACS
L_{28}
ΑŃ
     1986:558815 HCAPLUS
DN
     105:158815
TT
     Hair growth modification
TN
     Shander, Douglas
PΑ
     Handelman, Joseph H., USA
SO
     PCT Int. Appl., 19 pp.
     CODEN: PIXXD2
PΙ
     WO 8602269 A1 860424
     W: AU, DK, JP, NO RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
DS
     WO 85-US2000 851010
AΙ
PRAI US 84-661019 841015
DT
     Patent
LA
AΒ
     Human hair growth, including beard hair in men,
     is modified by topical application of a compn. contq. an ornithine
     decarboxylase inhibitor in a carrier and optionally an antiandrogen
     material also. Ornithine decarboxylase controls proliferation of
   hair follicle matrix cells. Thus, an alc. soln. for topical
     application contained 2-(difluoromethyl)-2,5-diaminopentanoic acid
     2.2, progesterone 1.0, 17-.alpha.-allyltestosterone 1.0, propylene
     glycol 4.0, dimethicone 1.0, and SDA-40 alc. 90.8% by wt.
CT
     Hair
     ANSWER 16 OF 16 HCAPLUS COPYRIGHT 1996 ACS
AN
     1985:528804 HCAPLUS
DN
     103:128804
TI
     Hair growth modification with compositions containing
     5.alpha.-reductase inhibitors and/or cytoplasmic androgen receptor
TN
     Kaszynski, Edwin G.; Breuer, Miklos M.; Shander, Douglas;
     Usdin, Vera R.; Van der Lee, Hermes
PA
     USA
SO
     PCT Int. Appl., 17 pp.
     CODEN: PIXXD2
ΡI
     WO 8502543 A1 850620
DS
        AU, DK, JP, NO
     RW: CH, DE, FR, GB, NL, SE
     WO 84-US1977
ΑI
                    841130
PRAI US 83-560726 831212
DT
     Patent
LA
     English
AB
     The rate and the character of androgen-stimulated hair
     growth in males are altered by the topical administration of compns.
     contg. 5.alpha.-reductase [9081-34-9] inhibitors and cytoplasmic
     androgen receptor binding agents either individually or in
     combination.
                    Thus, an aerosol foam was prepd. from a mixt. of
     progesterone [57-83-0] 2.0, cyproterone acetate [427-51-0] 0.2, cetyl alc. 5.2, and Myrj 52 3.0% and combining this with a mixt. of
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propylene glycol 4.0, water 85.4, and preservative 0.2%. An aerosol was packaged by using 7 parts hydrogen propellant A to 93 parts of the concn. The efficiency of the compns. in reducing the flank organ hair mass in adult intact male hamsters was demonstrated by administering progesterone and cyproterone acetate at 500 .mu.g and 1000 .mu.g/cm2, resp. Progestogens Androgens Hair => d que 162 20 SEA FILE=JICST-EPLUS MYCOPHENOL? OR MYCO PHENOL? O SEA FILE=JICST-EPLUS HAIR AND L61 => fil japio FILE 'JAPIO' ENTERED AT 14:10:42 ON 25 MAR 96 COPYRIGHT (C) 1996 Japanese Patent Office (JPO) and Japan Patent Information Organization (Japio) FILE LAST UPDATED: 06 MAR 96 <960306/UP> => d que 160 33 SEA FILE=JAPIO MYCOPHENOL? OR MYCO PHENOL? 1 SEA FILE=JAPIO HAIR AND L59 => d 160 bib ab ANSWER 1 OF 1 JAPIO COPYRIGHT 1996 JPO and Japio 95-112923 JAPIO NEW HAIR GROWING AGENT TAMURA GAKUZO; ANDO KUNIO; NAKAMURA TETSUO IMMUNO JAPAN: KK, JP (CO) JP 07112923 A 19950502 Heisei JP 93-289710 (JP05289710 Heisei) 19931015 PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. PURPOSE: To obtain a hair-growing agent having trichogenous effect on Mammalia, free from side effects and effective in preventing epilation of human and animal hair which occurs from various causes. CONSTITUTION: This medicinal composition for hair growing contains 0.01-6wt.%, preferably 0.05-1wt.% of mycophenolic acid of formula I or a mycophenolic acid derivative of formula II (R1 is H or OH; R2 is H or methyl; R3 is H or acetyl). The preparation form of the composition is selected from one kind of spraying agents, aerosols, liquid agents, lotion, cream and ointments. The composition can rapidly stop a state in which hair abnormally epilates by premature alopecia, alopecia areate, etc., and restore hair to normal state in extremely short time. Since the composition prevents epilation of hair of pets such as dogs and cats and promotes trichogenous action, pet's hair can rapidly and uniformly be grown by

applying the preparation to the part from which hair

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